

Theory of Demand and Forecasting

What is **DEMAND**?

- “Every want supported by the willingness and ability to buy” – constitutes demand for a particular product or services.....
- In other words, if a person wants a CAR and cannot pay for it. There is no demand for the CAR from his or her side.....

DEMAND

What is DEMAND?

Demand is the quantities that a person or market is ready, willing and able to buy.

(Ex. Bill Gates is able to purchase a Ferrari but if he is NOT willing to buy one, Then he has NO demand for one)



What is the Law of Demand?

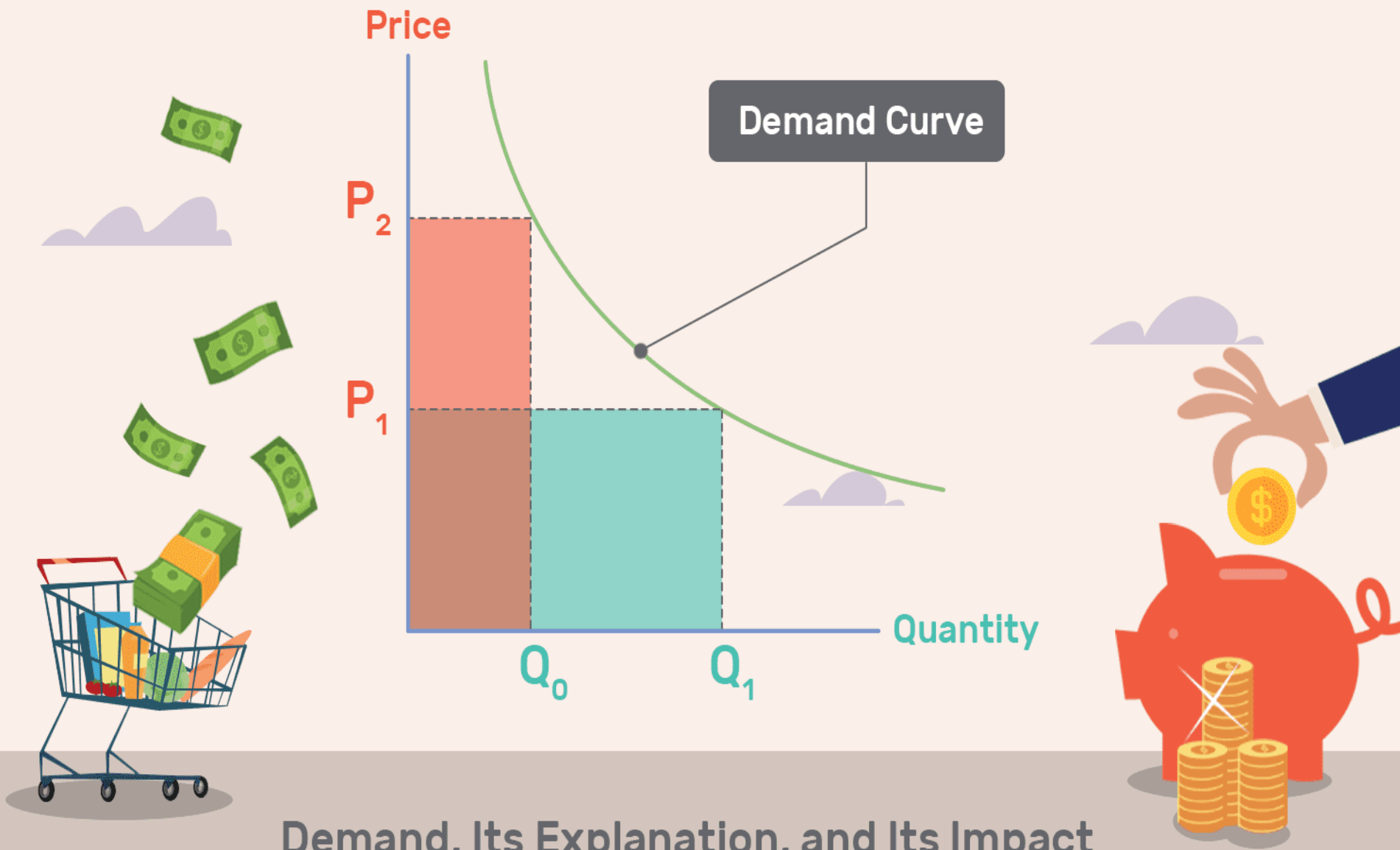
All else being equal, quantity demanded of a good rises, as the price decreases.

What is Demand?

- Demand- the desire, ability, and willingness to buy a product.
- Microeconomics- the area of economics that deals with behavior and decision making by *small units*, such as individuals and firms.
- A knowledge of demand is essential to understand how a market economy works.
- Knowledge of demand is important for sound business planning.

Law OF Demand

- The law of demand states, all other factors being constant, as the price of a good or service increases, consumer demand for the good or service will decrease, and vice versa
- The law of demand says that the higher the price, the lower the quantity demanded, because consumers' opportunity cost to acquire that good or service increases, and they must make more trade offs to acquire the more expensive product



Demand, Its Explanation, and Its Impact

Types of Demand

On the Basis of User

- Demand for Producer Goods
- Demand for Consumer Goods

On the Basis of Dependency on Other Commodity

- Autonomous Demand
- Derived Demand

On the Basis of Scale of Usage

- Company Demand
- Industry Demand

On the Basis of Impact Over Time

- Short Run Demand
- Long Run Demand

On the Basis of Durability

- Demand for Durable Goods
- Demand for Non-Durable Goods

What is Demand Forecasting?

- Demand Forecasting is predicting the future demand for products/services of an organization.
- To forecast is to estimate or calculate in advance
- Since forecasts are estimates and involve consideration of so many price and non-price factors, no estimate is necessarily 100% accurate.

Demand Function

Demand function shows the functional relationship between quantity demanded for a commodity and its various determinants.

Types of Demand Function

- ☐ Individual Demand Function
- ☐ Market Demand Function

Individual Demand Function

$$D_x = f(P_x, P_r, Y, T, E)$$

D_x = Demand for Commodity x

P_x = Price of Commodity x

P_r = Price of related goods

Y = Income of the consumer

T = Tastes and Preferences

E = Expectation of Future Prices

Individual Demand Function

P_x =Price of Commodity x



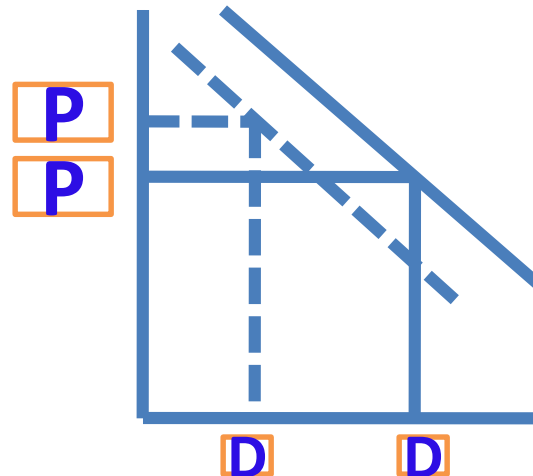
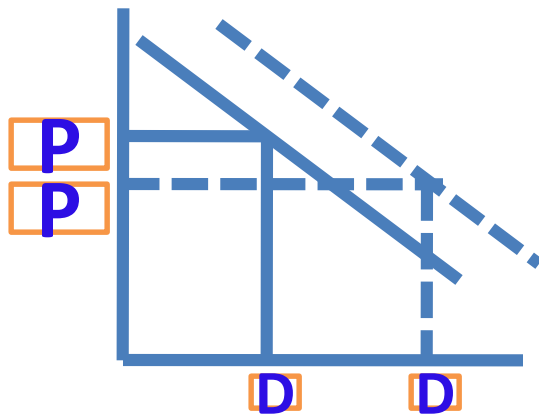
D_x =Demand for Commodity x



P_x =Price of Commodity x



D_x =Demand for Commodity x



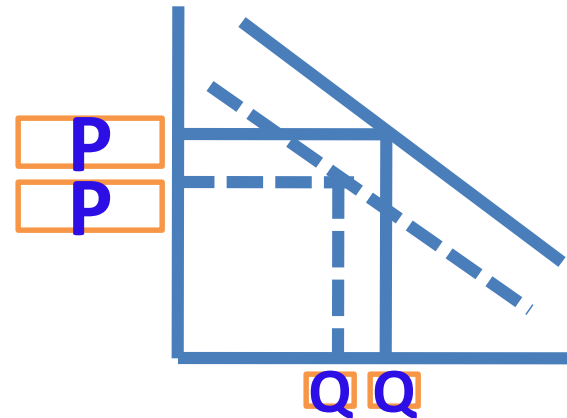
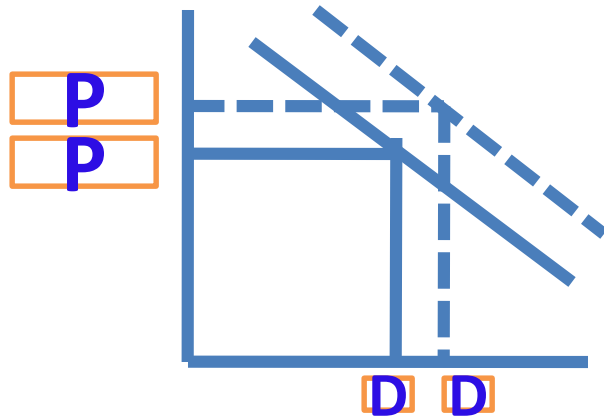
Individual Demand Function

a) Substitute Goods

b) Complementary Goods

Tea and Coffee

P_x =Price of Tea ↑	D_x =Demand of Coffee ↑
P_x =Price of Tea ↓	D_x =Demand of Coffee ↓

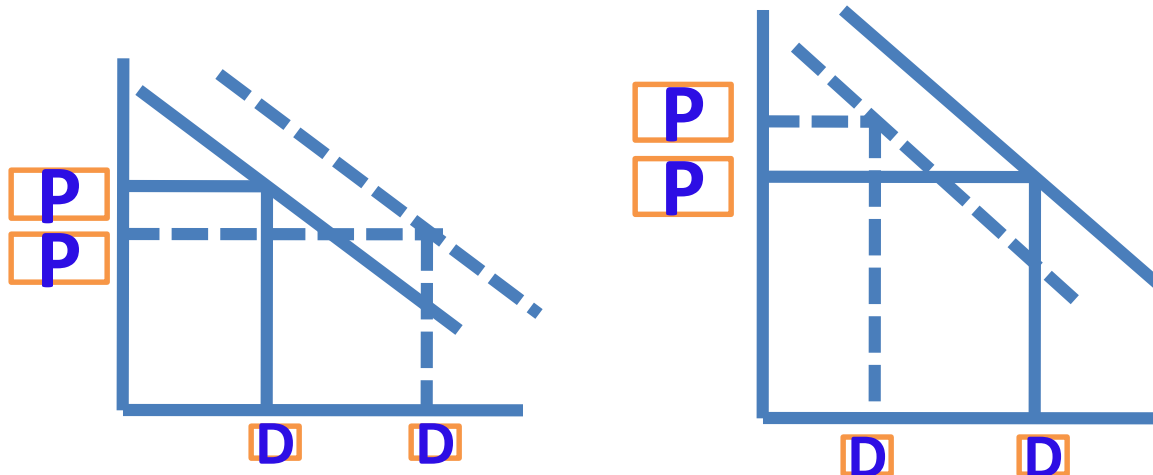


Individual Demand Function

b) Complementary Goods

Car and Petrol

P_x =Price of Petrol ↓	D_x =Demand for Car ↑
P_x =Price of Petrol ↑	D_x =Demand for Car ↓



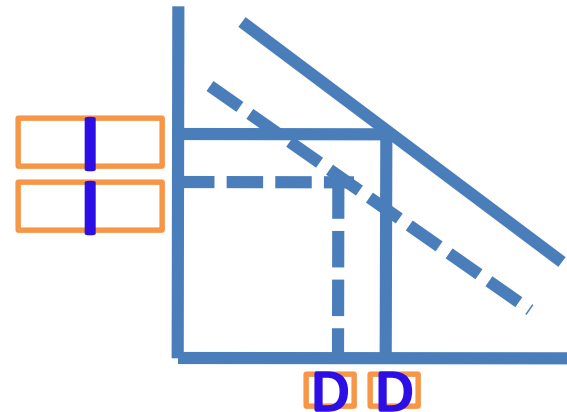
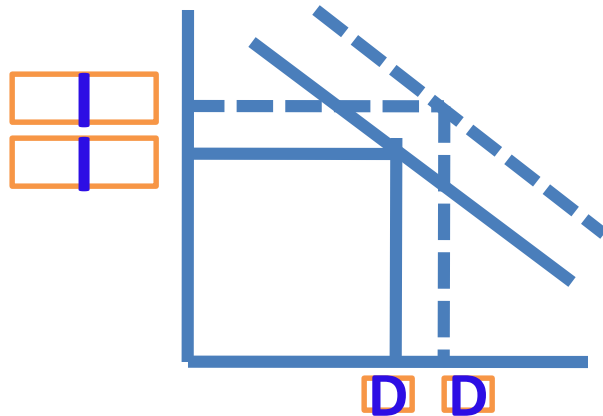
Individual Demand Function

Income of the Consumer (Y)

(A) Normal Goods

(B) Inferior Goods

$P_x = \text{Income}$ ↑	$D_x = \text{Demand of Normal Goods}$ ↑
$P_x = \text{Income}$ ↓	$D_x = \text{Demand of Normal Goods}$ ↓

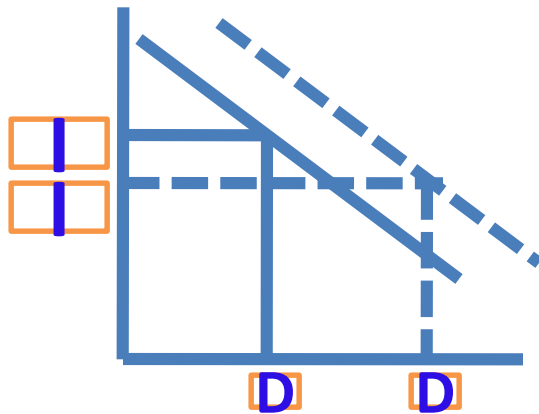


Individual Demand Function

Income of the Consumer (Y)

(B) Inferior Goods

$P_x = \text{Income}$ ↑	$D_x = \text{Demand of Inferior}$ ↓
$P_x = \text{Income}$ ↓	$D_x = \text{Demand of Inferior}$ ↑



Individual Demand Function

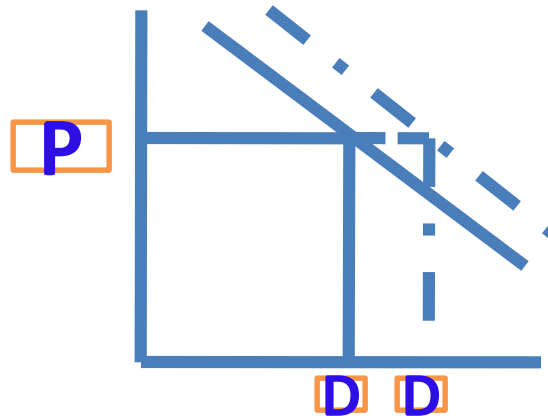
Tastes and Preferences

a) Favorable Change

b) Unfavorable Change

a) Favorable Change

Price of Favorable Product ↑	Demand of Favorable Product ↑
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Individual Demand Function

Tastes and Preferences

a) Favorable Change

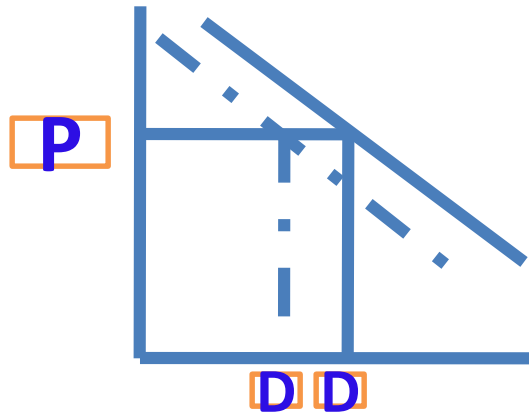
b) Unfavorable Change

a) Unfavorable Change

Price of Unfavorable Product



Demand of Unfavorable Product



Individual Demand Function

Expectation of Future Price

a) Future Price Increase

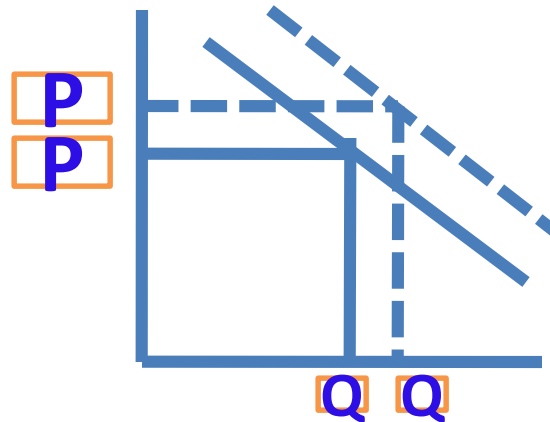
b) Future Price Fall

a) Future Price Increase

Future Price Increase



Demand of Products



Individual Demand Function

Expectation of Future Price

a) Future Price Increase

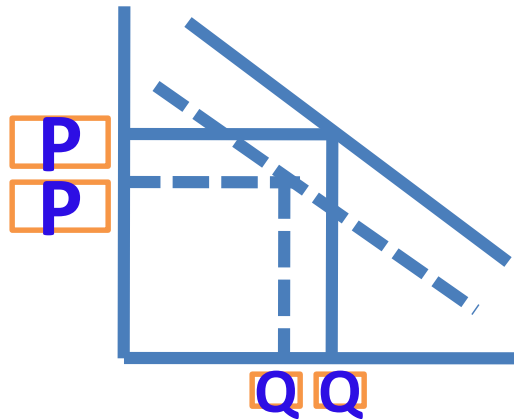
b) Future Price Fall

b) Future Price Fall

Future Price Fall



Demand of Products



Market Demand Function

$$D_x = f(P_x, P_r, Y, T, E, N, Y_d, G)$$

D_x =Demand for Commodity x

P_x =Price of Commodity x

P_r =Price of related goods

Y =Income of the consumer

T = Tastes and Preferences

E =Expectation of Future Prices

N =Population

Y_d =Distribution of Income

G =Government Policy

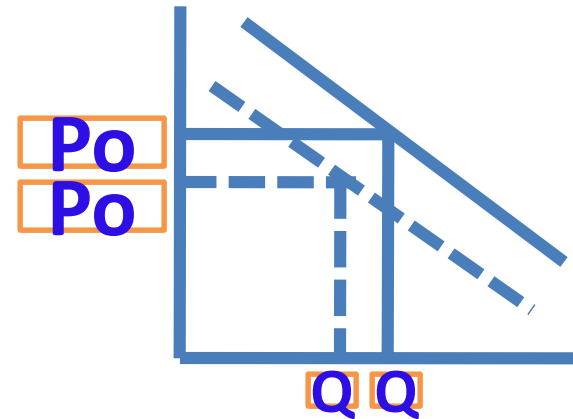
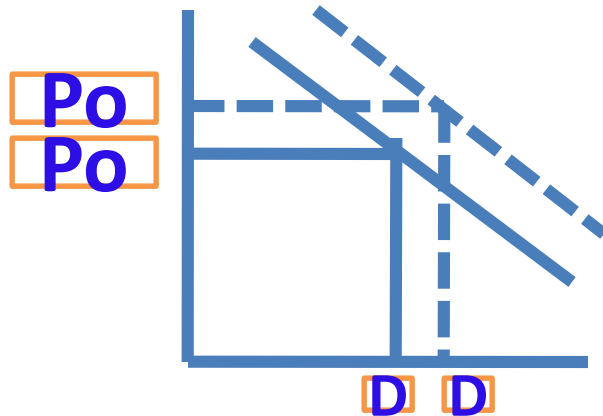
Market Demand Function

Population

a) Increase of Population

b) Decrease of Population

Population 	Demand 
Population 	Demand 



Market Demand Function

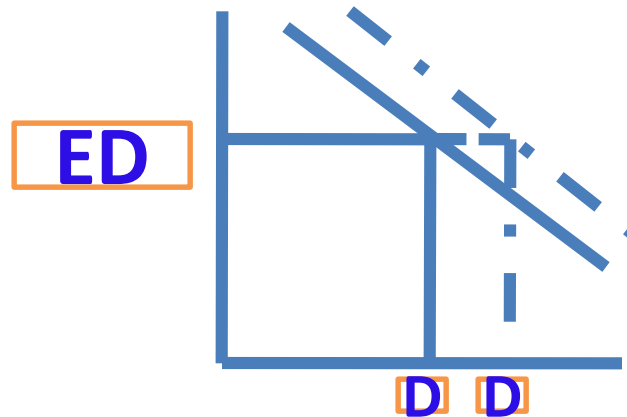
Distribution of Income

a) Equal Distribution

b) Unequal Distribution

a) Equal Distribution

If distribution is Equal	Demand 
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Market Demand Function

Distribution of Income

a) Equal Distribution

b) Unequal Distribution

a) Unequal Distribution

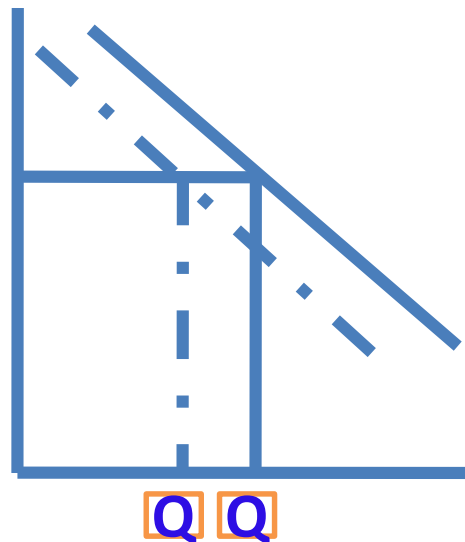
If distribution is Unequal

Demand



UeD

Q Q



Market Demand Function

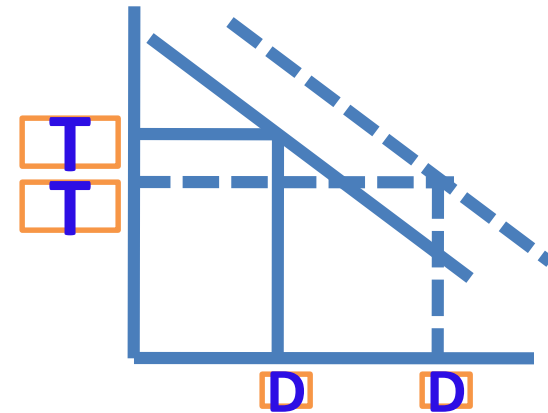
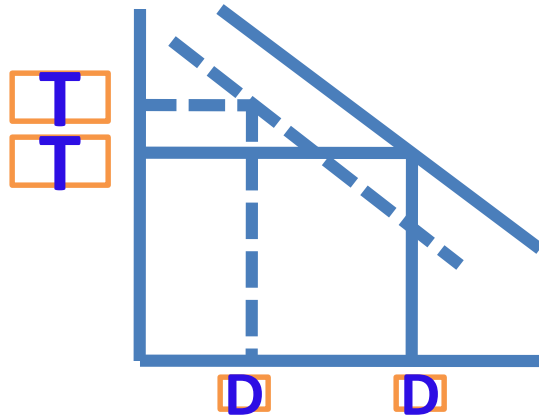
Government Policy

a) Tax

b) Rebate

Tax

Tax	↑	Price	↑	Demand	↓
Tax	↓	Price	↓	Demand	↑



Market Demand Function

Government Policy

a) Tax

b) Rebate

Rebate

Rebate ↑	Price ↓	Demand ↑
Rebate ↓	Price ↑	Demand ↓

